

REMARKS

Claim 1 is amended and claims 2 and 7 are canceled herein. Support for the amendment to claim 1 is found, for example, on page 9, lines 9-14 of the specification. The subject matter of claim 2 is incorporated into claim 1 and therefore claim 2 is canceled herein. Claim 7 is canceled as a duplicate of claim 4. Hence no new matter is presented.

This Amendment is presented in response to the Advisory Action mailed on July 7, 2004.

The Advisory Action indicates that the Amendment filed June, 7, 2004, was considered but does not place the application in condition for allowance because the data is not in proper declaration form and is not commensurate in scope with the coverage sought by the claims.

Specifically, the Examiner states that the data provided does include the solvent used and only alleges to provide a showing of the advantages of an aqueous based adhesive against only one type of solvent. It is the Examiner's position that this raises issues with respect to the breadth of the showing, e.g., does it apply to alcohols, ketones, or hydrocarbons, etc.

Further, the Examiner notes that any showing would be specific to the volume holographic materials with respect to the swellability of the hologram due to the solvent (water or otherwise) or smaller solvent soluble components of the adhesive layer would be dependent upon their ability to dissolve or their miscibility with the materials of the

specific holographic recording layer that the adhesive layer is in contact with. The Examiner states that clearly dichromated gelatin or photographic film based holograms that are based on water soluble binders would be swollen more by aqueous materials than a more hydrophobic holographic layer, such as photopolymerizable holographic layer formed from an aqueous solvent coating. According to the Examiner, this also relates to the practical issue of partially dissolving the first applied layer (i.e., the adhesive layer in this case), when applying the solvent based coating of a holographic layer. It is the Examiner's position that all of these materials are known to form volume holograms as evidenced by the disclosure at column 12, lines 28-39 of Morii et al. The Examiner further notes that Morii et al specifically mentions "aqueous adhesives or water-soluble adhesives" at column 33, lines 60-61. The Examiner also states that the omnidex material used by Morii et al may be dissolved in various solvents as disclosed in column 16 at lines 9-19.

Applicants respectfully traverse the rejection and submit that the presently claimed invention is not obvious over the prior art. The present claims are directed to a volume hologram layer in which "a volume hologram is recorded in a hologram recording material comprising a matrix polymer, a photo-polymerizable compound, a photo-polymerization initiator and a sensitizing dye".

The specification describes at page 13, lines 15 to 25, that suitable solvents used for the volume hologram layer comprising a matrix polymer, a photo-polymerizable

compound, a photo-polymerization initiator and a sensitizing dye, include ketones, alcohols, hydrocarbons, etc.

The attached Declaration under 37 C.F.R. § 1.132 provides results of applying the coating layer in which toluene described for the laminated film b in Example 7 (page 56 of the specification) is used as the solvent to the thermoplastic resin layer in the third laminated film in Example 1. With other solvents such as ketones and alcohols capable of dissolving the volume hologram layer, there is obviously a similar problem with using toluene referred to in the Declaration as the solvent. Therefore, the attached Declaration is sufficient for comparative examples to show the unexpectedly superior effects of the claimed invention.

In Example 1, the third lamination film is obtained by coating a dry thickness of 2 μm of the water-soluble heat-sensitive adhesive agent (EC1700) for the thermoplastic resin layer. An aqueous solution of the water-soluble heat-sensitive adhesive agent (EC1700) is used for coating as is the case with the preparation of a colorless heat seal layer in the lamination film a in Example 7.

In the present invention, by combining the “the thermoplastic resin layer in which a heat-sealable, water-soluble adhesive agent is dissolved or dispersed in water” with the requirements that the softening point of said thermoplastic resin layer is 55°C to 200°C, the softening point of said heat seal layer is 50°C to 195°C, and the softening point of said thermoplastic resin layer is at least 5°C higher than the softening point of said heat seal layer, there is no migration of the solvent and monomer in the adhesive

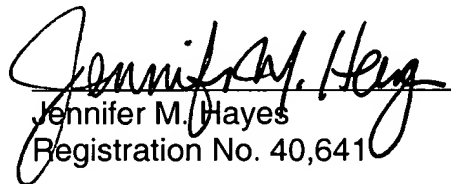
agent, and no influence on hologram recording. As is evident from a comparison of Examples 3-5 with Comparative Examples 3-7, it is possible to obtain a hologram transfer foil having improved transfer capabilities.

Morii shows an aqueous adhesive agent (column 33, lines 49-65), but does not teach or suggest all elements of the presently claimed invention. Further, Applicants have provided unexpectedly superior results of the claimed invention and therefore the claimed invention is not rendered obvious.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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CUSTOMER NUMBER

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